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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,456	02/24/2004	James Adam Hewson	CAF-32302/03	8577
25006	7590	06/02/2006	EXAMINER	
GIFFORD, KRASS, GROH, SPRINKLE & CITKOWSKI, P.C			COY, NICOLE A	
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DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/785,456	HEWSON ET AL.	
	Examiner	Art Unit	
	Nicole Coy	3672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 and 108 is/are pending in the application.
- 4a) Of the above claim(s) 108 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☒ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>20060528</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group 1: claims 1-63 in the reply filed on 4/26/06 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Newly submitted claim 108 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Inventions claim 108 and claims 1-63 are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because claim 108 does not claim "locating a first drill bit on a steerable tool and mounting the steerable tool and first drill bit on a first tubular member, said first tubular member including a deflecting member and means for determining at least one parameter of the bore and the orientation of the drill bit," as claimed in independent claim 63. The subcombination has separate utility such as a steerable tool and means for determining a parameter of the bore and orientation of the bit. As the inventions are distinct and applicant has already elected claims 1-63 for examination, claim 108 has withdrawn from consideration as being directed to a non-elected invention.

Claim Objections

2. Claims 37, 41, and 56 are objected to because of the following informalities: (1) Claims 37 and 41 are duplicate claims. (2) In claim 56, there is no antecedent basis for "the data acquisition." Appropriate correction is required.
3. Claims 57, 60, and 62 are objected to because of the following informalities: Only the first letter should be capitalized in Measurement while drilling and Logging while drilling. Appropriate correction is required.

Information Disclosure Statement

4. The information disclosure statement filed 6/17/04 fails to comply with 37 CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications, applications, or other information submitted for consideration by the Office; (2) U.S. patents and U.S. patent application publications listed in a section separately from citations of other documents; (3) the application number of the application in which the information disclosure statement is being submitted on each page of the list; (4) a column that provides a blank space next to each document to be considered, for the examiner's initials; and (5) a heading that clearly indicates that the list is an information disclosure statement. The information disclosure statement has been placed in the application file, but the information referred to therein has not been considered.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the data acquisition apparatus must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-15, 17, 18, 20, 25-30, 32, 33, 35, 42, 43, 47-51, and 54- 63 are rejected under 35 U.S.C. 102(e) as being anticipated by Carter et al. (US 2004/0244992).

With respect to claim 1, Carter et al. discloses a method of forming a supported bore comprising the steps of: mounting a first drill bit on a first tubular member (see claim 1); drilling a first bore to a first depth (see claim 1; see also paragraph [0068], wherein Carter et al. discloses that the main wellbore is a monobore formed by any suitable means, and wherein monobores are bores formed by drilling with casing); inserting a second drill bit mounted on a second tubular member within the first tubular member (see claims 1, 2, and 4, wherein Carter et al. discloses that two tubular members with drill bits are inserted into a wellbore, and that the first wellbore is the main one and that the second wellbore is a lateral wellbore; and see paragraph [0070]); and directing the second drill bit towards a wall portion of the first tubular member and drilling through said wall portion and drilling a second bore to a second depth (see paragraphs [0070]-[0072]).

With respect to claim 2, Carter et al. discloses a drilling assembly comprising a first drill bit mounted on a first tubular member (see claim 1) and a second drill bit mounted on a second tubular member (see claims 1, 2, and 4, wherein Carter et al. discloses that the second tubular member with a drill bit is a lateral bore), wherein at least said first tubular member includes a deflecting member mounted therein (see paragraph [0078]).

With respect to claim 3, Carter et al. discloses that the first tubular member is fixed in place in the first bore before the second bore is drilled (see paragraph [0095]).

With respect to claim 4, Carter et al. discloses that the first tubular member is fixed in place in the first bore after the second bore is drilled (see figures 3A and 3B).

With respect to claim 5, Carter et al. discloses that the first tubular member is cemented in place in the first bore (see paragraph [0095]).

With respect to claim 6, Carter et al. discloses that the second tubular member is fixed in place within the second bore (see paragraph [0089]).

With respect to claim 7, Carter et al. discloses that the second tubular member is cemented in place within the second bore (see paragraph [0089]).

With respect to claim 8, Carter et al. discloses that the second drill bit is directed towards the wall portion of the first tubular member by use of a deflecting member (226) mounted within the first tubular member (see paragraph [0078]).

With respect to claim 9, Carter et al. discloses that the first drill bit is located on a steerable tool before being mounted on the first tubular member in order to provide the

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first drill bit and tubular member with directional drilling capability (see paragraphs [0111] and [0112]).

With respect to claim 10, Carter et al. discloses that the method is adapted for use in producing a supported bore which extends from surface level and intersects a subterranean hydrocarbon bearing formation (see paragraphs [0003] and [0006]).

With respect to claim 11, Carter et al. discloses that the supported bore is a deviated bore (see paragraph [0007]).

With respect to claim 12, Carter et al. discloses that the supported bore is a multilateral bore (see paragraph [0007]).

With respect to claim 13, Carter et al. discloses that the second drill bit is located on a steerable tool (246) in order to provide the second drill bit and tubular member with directional drilling capability (see paragraph [0086]).

With respect to claim 14, Carter et al. discloses that the steerable tool (246) is a mechanical device that can be adjusted to effect changes in bore direction (see paragraph [0086]).

With respect to claim 15, Carter et al. discloses that the deflecting member (226) is set at a chosen angle with respect to the longitudinal axis of the first tubular member (see paragraph [0078]).

With respect to claim 17, Carter et al. discloses that the deflecting member (226) is fixed relative to the first tubular member (see paragraph [0078]).

With respect to claim 18, Carter et al. discloses that the deflecting member (226) includes a hardened surface to deflect the second drill bit towards the wall of the first

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tubular member and to prevent the member from being destroyed by the second drill bit (wherein the surface is inherently hardened, as the deflector does not get destroyed when a second drill bit deflects).

With respect claim 20, Carter et al. discloses that the deflecting member (226) is a whipstock (see paragraph [0085]).

With respect to claim 25, Carter et al. discloses that the first tubular member comprises at least one casing tubular (see claim 1).

With respect to claim 26, Carter et al. discloses that the first tubular member comprises a plurality of casing tubulars (see paragraph [0010]).

With respect to claim 27, Carter et al. discloses that the first tubular member comprises at least one liner tubular (see paragraph [0010]).

With respect to claim 28, Carter et al. discloses that the second tubular member comprises a plurality of casing tubulars (220).

With respect to claim 29, Carter et al. discloses that the second tubular member comprises a plurality of liner tubulars (220).

With respect to claim 30, Carter et al. discloses that the second tubular member comprises a plurality of drilling tubulars (220).

With respect to claim 32, Carter et al. discloses that rotation of the drill bit to effect drilling is provided by corresponding rotation of the tubular member upon which it is mounted (see paragraph [0012]).

With respect to claim 33, Carter et al. discloses that rotation of the drill bit is achieved by use of a downhole drive unit (see paragraph [0085]).

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With respect to claim 35, Carter et al. discloses that the first tubular member includes a valve assembly (350) for preventing fluids which are located in an annulus outwith the first tubular member from flowing or being displaced into the tubular member.

With respect to claim 42, Carter et al. discloses that the valve assembly (350) defines a throughbore allowing fluids such as cement or drilling fluid which are pumped through the tubular members to pass therethrough (see paragraph ([0112])).

With respect to claim 43, Carter et al. discloses that the throughbore of the valve assembly (350) is selectively closed (see paragraph [0095]).

With respect to claim 47, Carter et al. discloses that the first tubular member includes means for determining at least one parameter of the bore (see paragraph [0111]).

With respect to claim 48, Carter et al. disclose that the second tubular member includes a deflecting member (226) and means for determining at least one parameter of the bore (see paragraph [0086]).

With respect to claim 49, Carter et al. discloses that the means for determining at least one parameter of the bore include a data acquisition apparatus (246).

With respect to claim 50, Carter et al. discloses that the data acquisition apparatus is a bore logging apparatus (see paragraph [0086]).

With respect to claim 51, Carter et al. discloses that data acquisition apparatus performs data acquisition while the bore is being drilled (see paragraph [0086]).

With respect to claim 54, Carter et al. discloses that any data acquisition apparatus located within a corresponding tubular member is retrieved before the tubular member is fixed in place within the bore (see paragraph [0087]).

With respect to claim 55, Carter et al. discloses that the first tubular member further includes means for determining the orientation of the first drill bit (see paragraph [0111]).

With respect to claim 56, Carter et al. discloses that the orientation of the first drill bit may be determined by use of the data acquisition apparatus (see paragraph [0111]).

With respect to claim 57, Carter et al. discloses that the orientation of the first drill bit may be achieved by use of a Measurement While Drilling (MWD) apparatus (see paragraph [0111]).

With respect to claim 58, Carter et al. discloses that the drill bit is located on the steerable tool, the steerable tool includes include means for directly or indirectly determining the orientation of the first drill bit (see paragraphs [0111] and [0122]).

With respect to claim 59, Carter et al. discloses that the second tubular member includes means for determining the orientation of the second drill bit (see paragraph [0086]).

With respect to claim 60, Carter et al. discloses that the orientation of the second drill bit may be achieved by use of a Measurement While Drilling (MWD) apparatus (see paragraph [0086]).

With respect to claim 61, Carter et al. discloses that the second drill bit is located on a steerable tool (240), the steerable tool includes include means for directly or

indirectly determining the orientation of the second drill bit (wherein a BHA inherently includes means for determining the orientation of a drill bit).

With respect to claim 62, Carter et al. discloses that the orientation of the second drill bit may be achieved by use of a Logging While Drilling (LWD) apparatus (see paragraph [0086]).

With respect to claim 63, Carter et al. discloses a method of forming a supported bore comprising the steps of: locating a first drill bit on a steerable tool and mounting the steerable tool and first drill bit on a first tubular member (see paragraphs [0111] and [0122]), said first tubular member (26) including a deflecting member and means for determining at least one parameter of the bore and the orientation of the drill bit (see paragraphs [0111] and [0122]); drilling a first bore to a first depth (see figure 6); inserting a second drill bit mounted on a second tubular member within the first tubular member (see claims 1 and 2); and drilling through a wall portion of the first tubular member at the location of the deflecting member and drilling a second bore to a second depth (see figures 2 and 3).

8. Claims 1-3, 5, 8, 10-12, 15, 17, 18-20, 25, 26, 32, and 33 and are rejected under 35 U.S.C. 102(e) as being anticipated by Galloway et al (USP 6,899,186).

With respect to claim 1, Galloway et al. discloses a method of forming a supported bore comprising the steps of: mounting a first drill bit (140) on a first tubular member (315); drilling a first bore to a first depth (see figure 7A); inserting a second drill bit (350) mounted on a second tubular member (see figure 7B) within the first tubular

member (see figure 7B); and directing the second drill bit towards a wall portion of the first tubular member and drilling through said wall portion and drilling a second bore to a second depth (see figure 7B and column 7 lines 44-48).

With respect to claim 2, Galloway et al. discloses a drilling assembly comprising a first drill bit (140) mounted on a first tubular member (315) and a second drill bit mounted (350) on a second tubular member (see figure 7B), wherein at least said first tubular member includes a deflecting member (345, 355) mounted therein (see figures 6D and 7A and paragraph 26-43).

With respect to claim 3, Galloway et al. discloses that the first tubular member (315) is fixed in place in the first bore before the second bore is drilled (see figure 4).

With respect to claim 5, Galloway et al. discloses that the first tubular member (315) is cemented in place in the first bore (see figure 4).

With respect to claim 8, Galloway et al. discloses that the second drill bit (350) is directed towards the wall portion of the first tubular member (315) by use of a deflecting member (345, 355) mounted within the first tubular member (315).

With respect to claim 10, Galloway et al. discloses that the method is adapted for use in producing a supported bore which extends from surface level and intersects a subterranean hydrocarbon bearing formation (see figure 7B).

With respect to claim 11, Galloway et al. discloses that the supported bore is a deviated bore (see figure 7B).

With respect to claim 12, Galloway et al. discloses that the supported bore is a multilateral bore (see figure 7B).

With respect to claim 15, Galloway et al. discloses that the deflecting member (345, 355) is set at a chosen angle with respect to the longitudinal axis of the first tubular member (see column 7 lines 30-33).

With respect to claim 17, Galloway et al. discloses that the deflecting member (345, 355) is fixed relative to the first tubular member (see figure 7A).

With respect to claim 18, Galloway et al. discloses that the deflecting member (345, 355) includes a hardened surface to deflect the second drill bit towards the wall of the first tubular member and to prevent the member from being destroyed by the second drill bit (see column 7 lines 15-20).

With respect to claim 19, Galloway et al. discloses that the deflecting member (355) defines at least one fluid communicating aperture (360) which allows the flow of fluids through and past the deflecting member.

With respect to claim 20, Galloway et al. discloses that the deflecting member (345, 355) is a whipstock.

With respect to claim 25, Galloway et al. discloses that the first tubular member comprises at least one casing tubular (315).

With respect to claim 26, Galloway et al. discloses that the first tubular member comprises a plurality of casing tubulars (315).

With respect to claim 32, Galloway et al. discloses that rotation of the drill bit (140) to effect drilling is provided by corresponding rotation of the tubular member upon which it is mounted (see column 7 lines 49-55).

With respect to claim 33, Galloway et al. discloses that rotation of the drill bit (140) is achieved by use of a downhole drive unit (see column 7 lines 49-55 wherein Galloway et al. discloses a motor).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 16, 19, 21-24, 31, 34, 36, 37, 39, 40, 41 and 44-46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al.

With respect to claim 16, Carter et al. does not disclose the specific angle the deflecting member is set at. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to set the deflecting member at an angle of between 0.5 and 5 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

With respect to claim 19, Carter et al. does not disclose a deflecting member defines at least one fluid communicating aperture. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to have included a deflecting member which defines a fluid communication aperture in order to allow the flow of fluids through a deflecting member.

With respect to claim 21, Carter et al. discloses a whipstock, but not a kick-off plate. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used a kick-off plate, since the examiner takes Official Notice of the equivalence of a whipstock and a kick-off plate for their use as deflecting members and the selection of any of these known equivalents to deflect a second drill bit would be within the level of ordinary skill in the art.

With respect to claims 22-24, Carter et al. is silent as to the type of material the tubular member is made from. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have a reduced hardness such as soft metallic material or composite, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

With respect to claim 31, Carter et al. is silent as to whether the second tubular member comprises drilling collars. However, the examiner takes Official Notice that drilling collars are well known in the art to protect the instrumentation and adsorption of radial and torsional loads. Thus, it would have been obvious to one having ordinary skill in the art to modify Carter et al. by including drilling collars in order to protect the instrumentation and adsorption of radial and torsional loads.

With respect to claim 34, Carter et al. discloses a motor, but is silent as to the type of motor. Positive displacement mud motors are well known types of motors in the drilling art. Thus, it would have been obvious to one having ordinary skill in the art at

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the time of the invention to modify Carter et al. by using a positive displacement mud motor, in order to drive the downhole unit.

With respect to claim 44, Carter et al. does not teach selectively closing the valve assembly by plug or dart. However, it is well known in the art to close a valve assembly by plug or dart. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to close the valve assembly by a plug or dart.

With respect to claim 38, Carter et al. does not disclose that the valve assembly is located above the deflecting member. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to put the valve assembly above the deflecting member, since it has been held that rearranging parts in an invention involves only routine skill in the art. *In re Japkse*, 86 USPQ 70.

With respect to claim 39, Carter et al. does not disclose a valve in the second bore. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to include a valve in the second bore in order to prevent fluids from the annuls from entering the second tubular.

With respect to claims 36, 37, 40, 41, 45 and 46, Carter et al. discloses a check valve, but not a float collar, flapper valve or ball valve. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have used a flapper valve or ball valve, since the examiner takes Official Notice of the equivalence of a float collar, check valve and flapper and/or ball valve for their use in the valve art and the selection of any of these known equivalents to prevent flow would be within the level of ordinary skill in the art.

10. Claims 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carter et al. in view of Smith (USP 5,028,079).

With respect to claims 52 and 53, Carter et al. does not disclose providing a landing joint. Smith et al. discloses using a landing joint in a wellbore in order to grip a tubular member of the string. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Carter et al. by including a landing joint as taught by Smith et al. in order to grip the tubular member. Furthermore, the landing joint would be capable of providing a means for locating the data acquisition apparatus within the corresponding tubular member, allowing the acquisition apparatus to be retrieved from within the tubular member, and ascertaining the data acquisition apparatus.

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nicole Coy whose telephone number is 571-272-5405. The examiner can normally be reached on M-F 8:00-5:30, 1st F off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

nac



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